

E000P-971093-01
Date: 05/25/98

MODIFICATION REVIEW

For

BEAMLINE
PERSONNEL SAFETY SYSTEM

ARGONNE NATIONAL LABORATORY
ADVANCED PHOTON SOURCE
EXPERIMENTAL FACILITIES

E000P-971093-01

Modification Review for Beamline Personnel Safety System

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Modification Review for Beamline Personnel Safety System

PSS Change Request
25 May 1998

1. PSS Change

Chain A:

Chain A is not affected as the code in the Chains operates independently. A similar change has already been implemented for the Chain A code with Modification review E000P-971092-01.

Chain B:

This change will add a timer to the program to de-bounce the 60 PSI manifold pressure switch. The de-bounce period will initially be set at 3 seconds. However, the de-bounce period must not be longer than the timer period set for the shutter open operation in Chain A.

2. Reasons for the PSS Change.

Experience has shown under actual operating conditions that there is a significant negative pressure spike which occurs during a shutter open operation. This momentary pressure drop is sufficient to cause the Chain-B PLC to remove the Shutter permits. This change is required to correct the program behavior to that which is expected and eliminate the spurious faults from occurring.

3. Extent of the PSS Change

This change will affect all Chain B Beamline code written or modified on or after 25 May 1998.

4. Method of Implementation

The changes will be applied using the existing Software Change Request mechanism as defined in the Software Configuration Management Procedures document E000P-921130-01 dated 03/25/96 for the Interlock Systems and Instrumentation Group.